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ABSTRACT

A study examined an early reading intervention program designed to lead children, identified with low reading readiness at the start of first grade, to an appropriate reading level by the end of a 6-month period. Subjects were students entering first grade in a middle class community in northern Illinois. The problems of low reading readiness were documented through assessments made at the beginning of the school year. Analysis of probable cause data revealed that students lacked sufficient exposure to written and spoken language, the alphabet, and phonemic patterns. Additionally, some children experienced physical, emotional, or attention problems that interfered with their readiness to read. A review of solution strategies suggested by literature and an analysis of the problem setting resulted in the development of a first-grade reading intervention program designed to provide additional language and reading experience to those found to be most in need of reading support. The program provided for: (1) systematic phonic instruction, (2) use of appropriately leveled literature, and (3) a structure compatible with the child's whole class reading instruction. It also included a parent involvement component. Results from post-intervention data indicated either mastery of or increased performance in the students' recognition and use of upper and lower case letters, beginning sounds, spelling, name recognition, print awareness, rhyme and reading levels. (Contains 6 tables of data, 4 graphs, and 33 references; various forms labelled A through I are appended.) (CR)

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IMPROVING STUDENT READING THROUGH EARLY INTERVENTION

by

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Submitted in partial fulfillment of the requirements for the degree of Master of Arts in Teaching and Leadership

Saint Xavier University & IRI/Skylight

Field-Based Master's Program

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Abstract

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Title: Improving Student Reading Through Early Intervention

This report described an early reading intervention program designed to lead children identified with low reading readiness at the start of first grade to an appropriate reading level by the end of January. The targeted population consisted of entering first grade students in a growing middle class community located in northern Illinois. The problems of low reading readiness were documented through the beginning of year assessments.

Analysis of probable cause data revealed that students lacked sufficient exposure to written and spoken language, the alphabet and phonemic patterns. Additionally, some children experience physical, emotional or attentional problems that interfered with their readiness to read.

A review of the solution strategies suggested by literature and an analysis of the problem setting resulted in the development of a first grade reading intervention program designed to provide additional language and reading experience to those found to be most in need of reading support. The program provided for systematic phonic instruction, use of appropriately leveled literature, a structure compatible with the child's whole class reading instruction and included a parent involvement component.

Post intervention data indicated either mastery of or an increased performance in the students' recognition and use of upper and lower case letters, beginning sounds, spelling, name recognition, print awareness, rhyme and reading levels.

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Chapter 1

PROBLEM STATEMENT AND CONTEXT

General Statement of Problem

The targeted at risk students lacked reading readiness skills upon entry into first grade. This problem was documented through the administration of a teacher prepared reading readiness assessment, the children's anecdotal kindergarten records and kindergarten work samples.

Immediate Problem Context

The K-3 school is situated in a suburban Chicago community of about 5,000 people. The school's student population totals 720 and the average class size is 22. The school has a 95 percent attendance rate and a student mobility rate of 8 percent (School Report Card, 1994) (School Improvement Plan, 1994).

The school has experienced a growing number of students who require special services, i.e. learning disability services, speech and language services, remedial math and reading, English as a second language and social work support. In the 1994 school year, an inclusion program for exceptional children was begun. While the school is 91 percent Caucasian, there is a small but growing percentage of students of Mexican American and Asian descent (School Improvement Plan, 1994-1995). Two percent of the student population

come from low income families. The families either receive public aid, are supporting foster children and/or are eligible to receive free or reduced-price lunches.

There are 45 certified staff members, eighteen instructional aides, a full-time principal, and a half-time assistant principal (PTO School Directory, 1994-1995). The average number of years of teaching experience for the district is twelve years. Fifty-one percent of the teachers in the district hold a master's degree or a master's degree with additional course work (School Report Card, 1994).

The school district is comprised of an elementary, middle and junior high school. There are seven administrators: a superintendent, three principals, an assistant principal, a student services director and a curriculum director. The operating expenditure was $6,980 per pupil in 1992-1993 (School Report Card, 1994).

In 1963, the original building was completed. Sixteen additional classrooms were added in 1968. In 1989 the building was further expanded. By 1993, the building which originally housed students in grades K-5 could only accommodate the K-3 population. Grades four and five were moved to a different building in the district. Due to the continuing growth of the student population, by 1996 the building will only house the K-2 grades. In the meantime, portable units will be used to alleviate overcrowding.

The school's philosophy is explained in the following mission statement which is included in the Parent-Student Handbook (1993-1994, p.1): the "school is dedicated to the development of life-long learners. We encourage creativity through experimentation, problem solving and reflection while acknowledging and welcoming individual differences. We foster collaboration

among staff, parents and children to create an environment that is best for children.

The school's principal strongly supports teacher empowerment. In addition, quarterly release time is provided to the staff for planning, collaboration and training (School Improvement Plan, 1994-1995).

Curriculum integration is encouraged. Enrichment is offered to all students, not just those labeled "gifted" (School Improvement Plan, 1994-1995). There is no pull-out program provided for gifted students. The school's curriculum includes reading, language, science, social studies, math, art, music and physical education. The delivery of the reading-writing curriculum is quite varied at all grade levels. The approaches range from use of a traditional basal to whole language. In an effort to provide a cohesive reading program, the district is conducting a pilot study of two published reading-writing series during the 1995-96 school year.

The Surrounding Community

This suburban area has experienced considerable commercial and residential growth over the last ten years. The school district serves all or parts of six communities and is located in one township.

The families are predominately middle and upper middle class. Many of the parents have professional positions. An increasing number of families have two employed parents. Most parents are highly supportive and involved in the education of their children. There is a high level of parent volunteering in the school (School Improvement Plan, 1994-1995).

The median cost of a single family home in this township is $181,900 (U.S. Census, 1990). The vast majority of the adult residents have a college

degree or above. The per capita income is $47,941 (The Source Book of Zip Code Demographics)

Regional and National Context of Problem

We live in a time of enormous growth both in information and in technology. The social and economic necessity for reading is more important than ever before. Predicting what skills will be critical to students in the future is difficult. Each child must be able "to acquire, understand, use and communicate information accurately, efficiently and independently" (Adams, 1994, p. 26). Applebee, Langer, and Mullis' study (cited in Adams, 1994) reported that at the same time one acknowledges this situation, one is confronted with statistics that demonstrate the ability of students to read higher level materials is slowly but steadily declining.

Nationally, there is strong evidence that those children entering first grade with reading deficiencies will leave with reading deficiencies. The probability is high that a child who enters first grade lacking readiness for reading will remain disabled for a long time period (Juel, 1988). The National Assessment for Education Progress revealed that 60 percent of the seventeen-year-olds assessed in 1986 were lacking sufficient reading skills to be able to use written language to extract meaning (Mullis & Jenkins, 1990). The difference between the performance of better and poorer readers at each grade level remained constant (Applebee, Langer & Mullis, 1988). This fact leads to the conclusion that the nation's schools' efforts to remediate lower achieving students have not been successful (Hiebert & Taylor, 1994). Sadly, most students entering first grade lacking reading readiness skills remain behind their classmates in reading performance (Juel, 1988).

Great sums of money have been spent each year in an effort to remediate reading problems. Only a fraction of that expenditure has been spent trying to prevent reading problems. The emphasis on remediation, rather than on prevention, continues to be standard operating procedure in many schools. This policy is followed in spite of growing evidence that failure to read is preventable for almost all children (Pikulski, 1994).

As students entering first grade are being assessed for reading readiness, certain characteristics emerge as strong indicators of eventual reading success. According to Adams (1994, p. 43), "The best predictor of students' year-end reading achievement was their entering ability to recognize and name upper case and lower case letters." Since reliable measures exist, these data should be used to identify at-risk students thereby capitalizing on this information and determining appropriate intervention.

Chapter 2

PROBLEM EVIDENCE AND PROBABLE CAUSE

Problem Evidence

In order to document the extent of children's reading readiness in two first grade classrooms several assessments were administered to the whole class. The assessments included the following data: a test of the child's recognition of the upper and lower case letters, screenings to determine the child's ability to recognize initial consonant sounds and his/her own name, a sample of the child's penmanship, a test of the child's awareness of print and the child's concept of words, an assessment of book orientation, a test of rhyme recognition and a phoneme awareness check.

In order to assess the child's knowledge of letter names the teacher tested the child's ability to recognize the upper case letters and the lower case letters. In an individual interview, the teacher presented randomly ordered letters which the child named. The teacher recorded the child's responses on a separate page. By recording the exact responses the teacher gained insights as to the reason for the miscue i.e. reversals or total lack of familiarity with the letter. Recording Sheet for Capital Letters is Appendix A. Recording Sheet for Lower Case Letters is Appendix B.

Beginning consonant letter sound correspondence was determined in a further individual assessment. The teacher showed the child a picture of, for example, a bear and asked the child to say how the word began. The teacher then recorded the child's response. Any articulation problems were noted. Information regarding articulation was considered valuable because a child who cannot hear or produce sounds correctly will surely have trouble reading those same sounds. (Appendix C)

The child's ability to recognize his/her own first and last name was considered important in measuring previous experience with print. To determine this, the teachers prepared cards with first names and cards with last names of the children in the class. Some of these cards were spread on a table and children were individually asked to find their first, and later, their last name. The teacher recorded the child's success in finding both the first and last name along with notations on how the child accomplished the task. Was it automatic? Did the child use the first initial of his last name to find what he thought was his last name?

A sample of the child's penmanship was collected in a whole class setting by having the child write the alphabet and his/her name. These samples gave information regarding the child's understanding and mastery of letter formation and the ability to write his/her first and last name. This sample provided valuable insight as to the child's ability to organize and use space, his/her left to right orientation and his/her understanding of the proper use of a page from top to bottom.

Concept of print was assessed by several teacher observations. It is important that children have the language concepts and terminology for letter, word and sentence. To assess this, the teacher presented each child with a

sheet showing a word, a shape, a letter, several sentences and a number (Appendix D). The child was asked to identify each. The teacher recorded responses with attention to the ease with which the child completed the task. Also, to determine the one-to-one word correspondence, the teacher used a short text that recently had been read in the class. While pointing to each word, the teacher read a text of no more than two sentences. Next the child was asked to read the same sentences while pointing to the words. If the child was successful in completing the reading task, then he/she was asked to identify certain words selected at random by the teacher. And, finally, the child was asked to show the front and back of a book, top and bottom of a page and how to read a line of text determining left to right progression.

Rhyme recognition was assessed. One way children learn to read is through the development of word patterns. An early and accurate sense of a child's ability to identify word patterns can be found from studying a child's ability to hear the patterns found in rhyming words (Appendix E).

A phoneme awareness test was administered to small groups of children by the teacher. The teacher modeled an example of how to sound out a simple word such as "hat". The teacher dictated a twelve word list. Instructions were given to the child to spell the words the best he/she could using the sounds heard in the word. The purpose for administering this test is to help the teacher identify a child's knowledge of our letter sound system. In the analysis of this twelve word test, the teacher assigns a numerical value to each proper response a child makes. The twelve word list, if spelled entirely correctly would yield a score of 60. A child who knew all beginning and ending sounds of the twelve words (including three consonant blends) would achieve a score of 27. A child who is able to achieve this level is considered ready for a traditional first

grade reading program. A child who does not know these initial and final consonant sounds and blends is in a less ready position to achieve first grade reading success (Morris, 1993). (See Appendix F for word list and Appendix G for scoring procedure.)

In addition the child's reports from the end of the kindergarten year were reviewed. The results of the first grade screening when combined with teacher observation and the kindergarten reports yielded a picture of the child's overall academic progress.

Data from the two first grade classes can be found in Tables I and II. The data was used to determine which children lacked reading readiness and therefore needed support in reading.

Table 1 - Class A
Initial Screening of Whole Class

Students	Upper Case Alpha. 26 perfect	Lower Case Alpha. 26 perfect	Begin. Sound 21 perfect	Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *	Rhyme 8 perfect
Student A	26	26	21	54	yes	yes	8	8
Student B	23	16	10	27	yes	yes	8	8
Student C	26	24	18	45	yes	yes	8	8
Student D	26	24	19	33	yes	yes	8	8
Student E	26	23	17	12	yes	yes	8	8
Student F	26	26	18	21	yes	yes	8	8
Student G	26	23	19	33	yes	yes	8	8
Student H	25	25	11	19	yes	yes	8	8
Student I	24	20	20	38	yes	yes	8	8
Student J	26	24	15	27	yes	yes	8	8
Student K	26	26	21	50	yes	yes	8	8
Student L	26	24	21	58	yes	yes	8	8
Student M	26	26	20	38	yes	yes	8	8
Student N	26	26	20	46	yes	yes	8	8
Student O	24	25	20	37	yes	yes	8	8
Student P	26	26	21	55	yes	yes	8	8
Student Q	26	22	18	31	yes	yes	8	7
Student R	26	26	20	32	yes	yes	8	8
Student S	26	26	21	51	yes	yes	8	8
Student T	26	26	20	39	yes	yes	8	8
Student U	24	18	12	15	yes	yes	8	8
Student V	24	26	20	49	yes	yes	8	8

Table 2 - Class B
Initial Screening of Whole Class

Students	Upper Case Alpha. 26 perfect	Lower Case Alpha. 26 perfect	Begin. Sound 21 perfect	Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *	Rhyme 8 perfect
Student A	26	26	21	42	yes	yes	8	8
Student B	26	24	21	42	yes	yes	8	7
Student C	26	25	21	42	yes	yes	8	8
Student D	24	24	16	35	yes	yes	8	6
Student E	24	23	18	29	yes	no	8	8
Student F	26	22	21	43	yes	yes	8	8
Student G	26	26	19	29	yes	yes	8	6
Student H	26	26	21	50	yes	yes	8	8
Student I	Down Syndrome child not included in this study							
Student J	26	26	20	28	yes	no	8	8
Student K	23	20	9	12	yes	yes	8	8
Student L	22	24	13	10	yes	yes	8	8
Student M	26	25	21	36	yes	yes	8	8
Student N	26	23	18	22	yes	no	8	8
Student O	26	25	20	29	yes	yes	8	8
Student P	25	26	21	44	yes	yes	8	8
Student Q	25	22	19	24	yes	yes	8	7
Student R	26	23	18	36	yes	yes	8	8
Student S	26	22	18	36	yes	yes	8	8
Student T	26	22	20	36	yes	yes	8	8
Student U	26	26	26	52	yes	yes	8	8
Student V	26	20	16	29	yes	no	8	7

Probable Causes

A review of literature revealed a variety of probable causes for lack of reading readiness in first grade children. A low level of adult reading to children is one possible cause of a lack of reading readiness. The need for adult reading to children is cited by Adams (1994) as a major factor in reading readiness. In homes where there is little discussion of books, sense of story, letters, words and sounds, children lack sufficient exposure to language and reading to be prepared for first grade reading success. Adams also points out that it is not just the act of reading to the child which makes a difference in the child's level of reading readiness. The discussion of ideas, the exploration of word meanings and the adult's demonstrated value and enjoyment of reading differentiates the experience of a child who is ready to read from one who is not (Adams, 1994).

Further, the child's preschool and kindergarten experience may have failed to provide sufficient exposure to the alphabet and/or phonemic elements to lead the child to a level of mastery that prepares him/her for first grade reading success. In her book, Beginning the Read, Adams cites a study done by Wallach and Wallach which shows that preschoolers who have had training in isolating beginning sounds of words and then in peeling off the initial sound and pronouncing the rest of the word i.e. feel to eel, are able to locate phonemes in other positions in words and ultimately learn to read successfully. Adams has also cited the ability to name letters and to identify their sounds as the single greatest predictor of success in reading for a child entering first grade.

Children who come from homes where there is physical or emotional abuse may suffer from an inability to attend to learning due to their state of psychological readiness. Bond and Tinker (1973, p. 76) cite a study by Siegler & Gynther which states that "family conflicts are greater in the homes of poor readers than in the homes of children with no reading difficulties." They note that parents of poor readers tend to use derogatory terms to describe their children and they also tend to devalue their children's ability more often than do parents of successful readers. Bond and Tinker go on to say that a child who is happy and has a well integrated personality feels more secure and is more likely to make better progress in reading than one who is unhappy and less secure.

Children who presently, or in the past, have had medical problems may have low levels of reading readiness. This can be due to a variety of situations ranging from ear infections which impact language development to more severe medical problems. Bond and Tinker (1973) cite a study by Durrell and Murphy. Durrell and Murphy's clinical experience reveals that almost every child studied who was reading below the first grade reading level was handicapped by an inability to discriminate sounds in words. The ability to discriminate such sounds is a prerequisite to success in reading. Bond and Tinker also state that visual defects such as farsightedness, binocular in coordination and fusion difficulties may contribute to reading difficulties.

Children who have visual perceptual problems, auditory discrimination weaknesses, memory deficits, other processing difficulties or other more severe disabilities may well encounter reading problems. They will likely require much extra assistance to achieve reading success in first grade.

Additionally, Bond and Tinker (1973) report that any physical condition which causes a continuous state of fatigue makes it impossible for a child to exert sufficient energy to attend to the learning task. Fatigue causes the child to be inattentive. His/her inattention must necessarily result in gaps in learning. The cumulative effect of this inattention will eventually cause the child to be a disabled reader. Howard Gardner's multiple intelligences theory includes a verbal-linguistic category. This area involves listening, speaking, reading and writing. Gardner explains that each person possesses varying strengths and weaknesses in each of seven areas of intelligence. Simply put, children enter first grade with varying degrees of verbal-linguistic ability and this influences their capacity to learn to read (Gardner, 1993).

Plus, developmental issues play a great role for the first grade child. As the story of Leo the Late Bloomer (Kraus, 1971) tells, each child learns at his/her own pace. A child's readiness to learn to read is dictated by his own biological clock. Harris and Sipay (1975, p. 19) cite differences in chronological age as highly significant because of the rapid development which occurs at young ages. In How to Increase Reading Ability, the authors define reading readiness as "a state of general maturity which when reached allows a child to learn to read without excess difficulty". Harris and Sipay (1975) list the following characteristics as important to reading readiness: age, general intelligence, visual and auditory perception, associative learning, physical health and maturity, freedom from directional confusion, background, use of and ability to comprehend English, emotional and social adjustment and interest in reading.

There are many possible causes for low reading readiness in first grade children and more than one variable may well impact any one child. Bond and

Tinker (1973) notes that it is difficult to isolate a single cause of a child's reading disability. Several factors are often involved, each contributing to the difficulty the child experiences with reading.

Chapter 3

THE SOLUTION STRATEGY

Review of the Literature

Much literature addressing appropriate reading instruction focuses on phonics versus whole language instruction. There are extensive arguments supporting both sides of this debate. Each side is supported by fine thinkers and educators. Research presented by Adams (1994) suggests that the dichotomy between whole language and phonics instruction is an artificial one. In an effort to construct a model which will meet the needs of a varied at-risk student population this paper includes a discussion of reading intervention programs which employ both approaches.

Reading Recovery was developed by Clay (1985) and brought to the United States by Pinnell (1989). The first implementations of Reading Recovery in the U.S. occurred in Ohio schools. Reading Recovery lessons are delivered by a highly trained special reading teacher. The teacher meets with a child on a one-to-one basis five days a week for 30 minute sessions. There are five major activities covered during the lesson. First, the student reads a familiar story. Next, the teacher listens to the child reread the book begun the prior day and records the child's errors. The third step is called "Working with Letters". The activities employed during this section of the plan correspond with the child's

developing ability. The lessons start with learning about print and letters and continue through the various stages of word analysis. During the fourth step the child composes a brief message consisting of a sentence or two. The teacher rewrites the message on sentence strips and uses it to teach the child. During the final step the child reads a new book which has been carefully presented to him/her by the teacher. The steps to a guided reading lesson are explained in detail on page seven of Pinnell's article. Generally, in this method the teacher uses the exact vocabulary of a new text, while leading the children through a visual exploration of the pictures in the text. This use of the book's vocabulary prepares the children to read the text successfully on their first attempt (Pinnell, 1990).

Early Intervention in Reading (EIR) is a program which was developed by Taylor, Frye, Short & Shearer (1992). It has been implemented in several schools in Minnesota. The schools represent both middle and lower socioeconomic groups. The reading lessons are delivered by the classroom teacher to the five to seven lowest achieving students in that room. The lessons provide these students with an additional twenty minutes of reading instruction each day. During the rest of the daily reading period, the children receiving EIR assistance join the classroom reading program. The lessons focus on readings of picture books and the development of phonemic segmentation and blending. The program calls for spending three days on each story introduced. The teacher isolates three or four words to demonstrate how to first segment the words into phonemes (sounds) and then how to blend the phonemes together to reform a word. For example, "little" would be segmented into 4 sounds /l--i--t/. The children also use sound boxes to identify each sound (phoneme) of a given word. The students are taught to use phonic, syntactic and context clues to

word. The students are taught to use phonic, syntactic and context clues to enhance their word recognition skills. High quality literature is used. There is a daily five minute follow up session led by an aide, parent, or teacher during which the child rereads the stories previously read that day in the EIR group (Taylor, et al.,1992).

The Winston-Salem Project was designed by Cunningham, Hall and Defee (1991). It was implemented in two schools in Winston-Salem, North Carolina. One school served children from the middle class socioeconomic group while the other school served children from the lower socioeconomic group. Daily lessons are delivered to the whole group by the regular classroom teacher during a three hour and fifteen minute time period. In addition the most needy children in each class are provided with forty five minutes daily of additional reading instruction delivered by Chapter I and special education teachers (Pikulski, 1994).

The lessons are delivered through four major approaches to reading: basal reader, real book, working with words and writing. The time spent is equally divided among each of the four areas. During the basal reader block children read with partners. In addition, using the basal reader the teacher delivers whole group instruction. During the real books block children self select books and read with a friend or by themselves. Sharing is encouraged. There are two main activities during the working with words block. First, the children are introduced to sight words using a strategy Cunningham (1991) calls "Wall Words". Wall words are words taken from the children's reading which are also high frequency words. They are words which are phonetically irregular and cannot be correctly sounded out using regular phonics clues and rules. The second main activity in this section also developed by Cunningham

is called "Working with Words". In the "Working with Words" activity, children arrange and rearrange alphabet tiles to form words dictated by the teacher. All of the words are taken from the letters which form one larger word. For example, if "thanks" were the final/largest word, the words dictated might include: an, tan, Hank, tank, sank, etc. The letters of each dictated word would be those in the word "thanks". No additional letters may be used. During the fourth block of time, writing, the teacher demonstrates writing through mini lessons. The children write and produce books.

Success for All was developed by Slavin and Madden (1991). The model was tested in seven schools in three districts in Maryland. The children came from the most disadvantaged and lowest achieving schools in their districts. In this model all students in the school are taught reading at the same time. During this time, the children are homogeneously grouped in classes of fifteen to twenty students. This regrouping for reading allows each teacher to teach the whole class without having to split into reading groups (Pikulski, 1994). In addition, individual tutoring sessions of twenty minutes are provided for the students who have difficulties keeping up with classroom reading assignments. These twenty minute sessions occur during social studies and are delivered by certified Chapter I, special education and/or primary reading teachers. These sessions mimic the structure of the lessons presented earlier.

All lessons begin with the teacher reading to the whole class and engaging them in discussion of the literature. In kindergarten and first grade the program emphasizes the development of language using "Story Telling and Retelling" (STaR) which was designed by Karweit (1988). Peabody Language Development Kits are used to improve receptive and expressive language (Madden, et.al., 1991).

At the beginning of reading, letters and sounds are taught. Then a series of phonetically regular, meaningful and interesting mini books are used. At the primer level, the program uses a form of Cooperative Integrated Reading and Composition (CIRC) (Stevens, Madden, Slavin & Farnish, 1987) along with their basal series. Classroom libraries of trade books at the student's reading level are provided. The children select one library book to read for twenty minutes each evening for homework.

First Steps, an Early Intervention Reading Program was developed by Morris (1993). First Steps was introduced in four rural schools in western North Carolina. This program includes a component of extensive on-going reading training for both the classroom and reading teachers. First Steps is designed specifically for first grade children identified as lacking reading readiness skills. Trained teachers administer thirty minute lessons daily on a one-to-one basis. The daily lesson plans are modeled after those of Clay's Reading Recovery Program (1985).

Each lesson begins with the rereading of a familiar book, followed by a word study during which the child studies the alphabet, beginning consonants, word families or vowel patterns. Next the child writes a sentence of his/her own using invented spelling. Later, assisted by the teacher, the child's sentence is reviewed and corrected. The teacher then previews and prepares the child to read a new book. The book is read by the child and will be reread at the start of the following day's lesson (Morris, 1993).

As a result of the study of these programs, the authors have identified certain aspects of each model to use as the basis of an intervention program. They have tailored their program to meet the needs of their own students and classrooms.

Project Outcomes and Solution Components

As a result of early intervention to improve reading during the period of September 1995 to January 1996, the first grade students identified as lacking reading readiness will increase their reading ability as measured by published and teacher prepared reading assessments.

In order to achieve the above stated reading improvement outcome, this project will proceed with the following five step intervention for first grade students. Based on our study of reading research, these components were shown to be highly effective. Also, they were logistically feasible in our school setting. Therefore, these components were chosen to be implemented in this intervention program. Each of these five steps will be detailed in the Action Plan.

1. Establish processes to advance student phonemic, letter and word awareness.

2. Employ a guided reading and writing process to insure student reading task success.

3. Develop a read aloud program.

4. Provide a whole classroom reading program which integrates the language and structure of the intervention program to insure transfer and success.

5. Encourage home reading support.

Action Plan for the Intervention

These five global objectives will be implemented according to the following reading intervention plan.

1. Establish processes to advance student phonemic, letter and word awareness.

Students entering first grade without reading readiness and identified through whole class assessments such as alphabet identification, consonant sound awareness, and phoneme awareness test (Morris, 1993) will participate in this intervention. The single best predictor of a student's year end reading achievement is his/her ability to recognize and name the upper and lower case alphabet letters at the start of first grade. The next strongest indicator is the student's score on an auditory phoneme discrimination task (Adams, 1990, Bond & Dykstra, 1967). Based on this evidence, it becomes critical for the first grade teacher to identify those children who lack reading readiness in order to provide immediate and appropriate reading instruction. As part of the daily twenty minute intervention, the classroom teacher will directly teach alphabet names and sounds as well as phonemes and word awareness.

a. Letter names, initial consonant sounds, final consonant sounds, digraphs, blends, and vowels will be presented systematically through the day's literature.

b. Rhyming will be explored and enjoyed through poetry, word play and word sorts.

c. Word patterns will be discovered and examined through word sorts, lists of word families and "Working with Words" activities (Cunningham, 1995).

d. Spelling skills will be taught from word patterns already discovered by the children.

e. Previously introduced high frequency sight words will be practiced and reviewed.

2. Employ a guided reading and writing process to insure student reading task success.

In order to learn to read a child must read. The guided reading model places a readable text in the hands of the beginning reader so that he/she experiences reading. This feeling of being able to read encourages the child to continue the learning to read process. Each day in the classroom the teacher will employ this reading model adapted from Clay (1994), Morris' First Steps Program (1993) and Rigby's guided reading design. A dependable, predictable routine is important for a first grade student. Therefore, the sequence of steps will be the same each day.

a. The children reread the story first presented in yesterday's reading lesson.

b. The phonemic, letter and word study portion of the lesson will be taught. This is described above in process statement 1.

c. The teacher selects a word from the day's story. She asks the children to determine the number of sounds (phonemes) in the word. At the top of his/her page each child draws a box for each phoneme heard in the word. The child places the letters representing each sound heard in sequence in the boxes. For example, if the word were snow, the children would draw three boxes. They would place the letters "s" "n" "o" in that sequence in the boxes. The teacher would then instruct the

children to add the letter "w" to the third box explaining that in this word the long "o" sound is spelled "ow". The group would then agree upon a sentence using the word "snow" which each child would write on his paper. The teacher would also write the sentence being sure to time her writing of the words to follow after the children's production of the words. The teacher uses standard spelling, drawing awareness to either sound correspondences, sight words, word patterns, sequencing and/or context.

d. Each day the children write in their journals. They are encouraged to invent spellings on self selected topics. High frequency, non-phonetic words are readily available for the children to see and copy from the classroom wall.

e. The teacher initiates discussion to arouse the children's interest in the book and motivate them to use their developing reading skills and strategies.

(1) The teacher and children talk about the cover of the book. Children are asked to make predictions about the story line.

(2) The teacher carefully uses vocabulary and language from the text to prepare the children for reading and to enhance their understanding of the story.

(3) The teacher and children discuss experiences to help the children link the book with their own lives.

(4) The teacher proceeds from the cover to the title page. She rereads the title and talks about the illustrations. She

helps children focus on details that may help them make further predictions about the story.

(5) The teacher and children "talk" through the book, page by page, using vocabulary from the text.

(6) The teacher and children scan the text for any unknown words. Word attack skills are employed to decode the words.

(7) After the children have been guided through the book, they read the book independently within the group while the teacher observes and supports as necessary. Since children at this stage in reading tend to vocalize, this individual reading within a whole group situation becomes a supportive chorus (Rigby, 1995).

3. Develop a read aloud program.

Children need to see and hear reading modeled correctly to learn to read. Children will be encouraged to select the book to be read from a library of appropriately leveled books. These books will be slightly higher in readability than the children's current reading level (Adams, 1994). Daily an adult (parent, volunteer, aide or teacher) will read the chosen book to the children. The group will discuss and enjoy the story.

4. Provide a whole classroom reading program which integrates the language and structure of the intervention program to insure transfer and success.

Children who are having difficulties learning to read are often children

who have trouble attending and/or transferring learning into a new situation. Using a similar approach in both the small reading group and the whole classroom promotes success for the at risk children by reducing their need to learn an extraneous set of behaviors and by promoting a predictable environment. In daily practice the teacher will design whole class structure, methods and language with sensitivity to providing continuity for these children. The five step intervention outlined in this paper's "Project Outcome and Solutions Components" section will be utilized as a framework for the whole group big book reading instruction. The whole class will explore and enjoy poetry and word play. Phonics instruction in the whole class will be taught according to the principles outlined in the work of Cunningham. The children will engage in activities using word patterns, word sorts, word families, wall words and spelling (Cunningham, 1995). Children will read independently and with a partner from self-selected, at-level literature. Daily the teacher will read aloud a variety of engaging and rich literature. The reading will be followed with discussion and reflection.

5. Encourage home reading support.

Studies show a connection between a child's home environment and his/her acquisition of literacy (Morrow & Paratore, 1993). It is a powerful motivator for the first grade child to see his parents and teachers valuing the same reading practices. A strong link between teacher and parents will be established by early and frequent communication in order to share information and set priorities. In addition, parents will be encouraged to read with or to listen to their child read for fifteen minutes

a day. In order to facilitate and insure a high quality experience at home, the teacher will provide parents with a list of appropriately leveled books to read and suggestions for pleasant and meaningful parent-child reading sessions. Copies of the class newspaper will be sent home daily for rereading. Parents will be asked to keep a log of books read. The child will return to his/her teacher a simple list of books read at home. The log and the child's report will be used by the teacher to monitor reading practice and provide for the child a sense of accomplishment.

Methods of Assessment

In order to assess the effects of this intervention both teacher-prepared and published evaluation tools will be used periodically throughout the intervention. An initial whole class assessment battery will be used at the start of first grade to determine which students need the reading intervention. This test battery includes: large print sample of child's name, child's writing sample of his/her name, lower and upper case alphabet identification, child's writing sample of the alphabet, beginning letter sound correspondence assessment, child's oral reading of familiar and simple text, concept of word assessment, phoneme awareness spelling test (Morris, 1993). Further information will be gathered from the identified at risk students by administering a student survey of reading attitudes and an interview on reading attitudes and behavior. The teacher will keep an observational journal in which she/he will record the student's progress. As the intervention proceeds, the following evaluations will be administered every eight weeks:

(1) Alphabet name and sound until mastery is achieved.

(2) Concept of word evaluation until mastery is achieved.

(3) Teacher observation of the child's reading.

As a final assessment the following tests will be administered.

(1) Student interview of reading attitude and behavior.

(2) A sample of the child's printing of the alphabet.

(3) A sample of the child's writing of his/her name.

(4) Phoneme awareness spelling test.

(5) Published test - Houghton Mifflin Invitations to Literacy.

(6) Running reading record.

(7) Teacher's daily observation of the child's reading development.

Chapter 4

PROJECT RESULTS

Historical Description of Intervention

The objective of this intervention was to lead first grade children, identified early in the year as having low reading readiness, to an appropriate reading level by the end of January. The first step of the intervention was to assess the reading skills of the entire class. The assessments included a test of each child's knowledge of letter names, letter-sound association, phonemic awareness, rhyme, and a survey about reading attitude (Appendixes A-I). It was decided that two surveys of reading attitude were too time consuming to administer. One survey (Appendix H) was selected to identify the children's feelings about reading. In September the teachers decided not to ask the children to try to read a short passage. The teachers decided that in asking a child to read, the child would conclude that s/he should, indeed, be reading. For those who were not yet able to read, a sense of failure might be experienced. The teachers wanted to avoid that possibility.

The results from this assessment were analyzed. The children who were lacking print awareness, who could not rhyme, who lacked knowledge of letter names and letter-sound associations were identified. This information, in tandem with teacher observations of the child's classroom performance, was used to determine which children were at risk of failure in first grade reading.

An analysis of the test data collected in September in Class A resulted in the identification of students B, E, H, J, Q and U as subjects for the intervention. Student Q had higher raw scores on isolated skill tests than student F. But teacher observation showed that student Q had an inability to synthesize the various sub skills and actually read. The reverse was true of student F. The isolated skill scores were lower on this student's tests, but teacher observation showed that the child was already synthesizing the skills and starting to read. Therefore, student F was excluded from the intervention while student Q was included in it. The results are shown in Table 3.

Table 3 - Class A
Pre Test - Post Test Results

Students	Upper Case Alpha. 26 perfect		Lower Case Alpha. 26 perfect		Begin. Sound 21 perfect		Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *		Rhyme 8 perfect	
Student A		26		26		21	54	yes	yes		8		8
Student B	**23/26**		**16/26**		**10/20**		**27/37**	**yes**	**yes**		**8**		**8**
Student C		26		24		18	45	yes	yes		8		8
Student D		26		24		19	33	yes	yes		8		8
Student E	**26/26**		**23/26**		**17/21**		**12/42**	**yes**	**yes**		**8**		**8**
Student F		26		26		18	21	yes	yes		8		8
Student G		26		23		19	33	yes	yes		8		8
Student H	**25/26**		**25/26**		**11/21**		**19/50**	**yes**	**yes**		**8**		**8**
Student I		24		20		20	38	yes	yes		8		8
Student J	**26/26**		**24/25**		**15/20**		**27/45**	**yes**	**yes**		**8**		**8**
Student K		26		26		21	50	yes	yes		8		8
Student L		26		24		21	58	yes	yes		8		8
Student M		26		26		20	38	yes	yes		8		8
Student N		26		26		20	46	yes	yes		8		8
Student O		26		25		20	37	yes	yes		8		8
Student P		26		26		21	55	yes	yes		8		8
Student Q	**26/25**		**22/24**		**18/18**		**31/39**	**yes**	**yes**		**8**		**7/8**
Student R		26		26		20	32	yes	yes		8		8
Student S		26		26		21	51	yes	yes		8		8
Student T		26		26		20	39	yes	yes		8		8
Student U	**24/26**		**18/26**		**12/20**		**15/45**	**yes**	**yes**		**8**		**8**
Student V		26		26		20	49	yes	yes		8		8

An Analysis of the test data collected in September in Class B resulted in the identification of students E, K, L, N, S and V as subjects for the intervention. Students Q and R both had extensive reading needs, but were already included in a Learning Disability placement. Although they continued to receive reading lessons in the regular classroom, they were not included in this study. Student I, a Down Syndrome child, received all her reading instruction within the classroom, but again was not included in this study because her reading needs required a highly personalized reading program. Teacher observation was used to make the judgment that students G, J and O possessed stronger reading readiness than the chosen students. The results are shown in Table 4.

Table 4 - Class B
Pre Test - Post Test Results

Students	Upper Case Alpha. 26 perfect	Lower Case Alpha. 26 perfect	Begin. Sound 21 perfect	Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *	Rhyme 8 perfect
Student A	26	26	21	42	yes	yes	8	8
Student B	26	24	21	42	yes	yes	8	7
Student C	26	25	21	42	yes	yes	8	8
Student D	24	24	16	35	yes	yes	8	6
Student E	**24/26**	**23/26**	**18/20**	**29/37**	**yes**	**no/yes**	**8**	**8**
Student F	26	22	21	41	yes	yes	8	8
Student G	26	26	19	29	yes	yes	8	6
Student H	26	26	21	50	yes	yes	8	8
Student I	Down Syndrome child not included in this study						8	
Student J	26	26	20	28	yes	no	8	8
Student K	**23/26**	**20/26**	**9/20**	**12/35**	**yes**	**yes**	**8**	**8**
Student L	**22/26**	**24/26**	**13/15**	**10/25**	**yes**	**yes**	**8**	**8**
Student M	26	25	21	36	yes	yes	8	8
Student N	**26/26**	**23/26**	**18/20**	**22/37**	**yes**	**no/yes**	**8**	**8**
Student O	26	25	20	29	yes	yes	8	8
Student P	26	26	21	44	yes	yes	8	8
Student Q	25	22	19	24	yes	yes	8	7
Student R	26	23	10	36	yes	yes	8	8
Student S	**26/26**	**22/24**	**18/19**	**36/37**	**yes**	**yes**	**8**	**8**
Student T	26	22	20	36	yes	yes	8	8
Student U	26	26	26	52	yes	yes	8	8
Student V	**26/26**	**20/24**	**16/18**	**29/31**	**yes**	**no/yes**	**8**	**7/8**

The identified children were placed into a program which provided daily systematic instruction from both the classroom teacher and an itinerate reading teacher. The daily teaching of this group both by the support teacher and the classroom teacher was in contrast to other years where the only support resources available for at-risk children were volunteer parents working one-to-one with the most needy children. In addition, in prior years the daily class instruction for all children had been delivered in a whole class model rather than in a small homogeneous group.

Early in the intervention the classroom teachers and the support teacher emphasized the learning of letter names and sounds. This was done in the context of simple stories (Story Box, Rigby 2000) and easy to read trade books. Rhyming was explored and enjoyed in poetry, word games and word play. Each day the classroom teacher provided direct, systematic instruction on letter name and sounds, digraphs, blends, vowels and on reading strategies such as the use of phonetic clues, context clues and picture clues to decode and comprehend text.

The children were provided with opportunities to sort words into families and to build words. Spelling patterns were discovered and practiced. High frequency sight words were introduced and practiced using Cunningham's wall word strategies (Cunningham, 1995).

Guided reading lessons provided the children with the opportunity to read new materials after having been presensitized to the material by the teacher's introduction (Clay, 1994). The teachers used reading materials from Story Box Books, Rigby 2000, Rigby PM, Rigby Smart Start and MacMillan basal series. (See Appendix I for material listing.) The classroom teacher did sound box work with the students. There were times when the support teacher

followed up on the sentence writing after the classroom teacher did the sound box work with the children. In addition, the support teacher used the sound box and sentence writing techniques on some days when the classroom teacher was concentrating on some other aspect of the program. Whereas the action plan called for daily sound box work and sentence writing, those activities were actually done about twice a week by the teacher. It was found to take more time than the classroom teacher could afford on a daily basis. The sentence writing done under the classroom teacher's guidance was dropped entirely by November because of time constraints. The children did reread their daily stories with the itinerate reading teacher. Priority was placed on daily reading and all skill work was practiced within a time frame that would not impinge upon reading time.

Each child kept a personal writing journal and a reading response journal. One or both journals were used by the child each day. The classroom teacher read to the children every day. The books were of a higher reading level than that of the children. The plan called for the children to self-select the books to be read, but actual classroom practice demonstrated that it was a more efficient use of time for the teacher to select these books. The children were allowed to self-select books for silent sustained reading and for partner reading.

While keeping observational journals on each of the identified students seemed like a useful idea in August, it became much too time consuming in actual practice. Both classroom teachers found that because they read with each child every day, they had a personal knowledge of the student's reading patterns and did not actually need the written records to track the child's progress. While it would have been very interesting to do so, the teachers abandoned the idea because of time constraints.

Both teachers agreed that every decision regarding the intervention would be made so that the children's actual time spent in reading would be held as the top priority. Any activity (skill work, testing) which would interfere with the time the children spent in reading would be minimized.

Connection between home and school was encouraged. There was frequent communication between teachers and parents. A list of books for reading was sent home to parents. Both teachers employed a full group language experience activity formatted as a daily class newspaper. The news was based upon the children's morning rug time sharing comments. Copies of the class newspaper were sent home for daily rereading. The plan called for parents to keep a log of books read at home. In practice, the teachers found this to be a problem. In classroom A the teacher decided not to ask the parents to keep this record because she feared that some of the children might be put under too much pressure. The teacher in classroom A noted high anxiety on the part of at least three of her children's parents. The teacher was fearful that asking those parents to log their children's reading might increase their anxiety. The parents' anxiety could have transferred to the students. In classroom B the parents demonstrated varying degrees of cooperation in completing the log.

Presentation and Analysis of Results

Tables 5 and 6 show the raw scores of the identified at-risk children from assessments administered in September and again in January. The growth demonstrated by all children is clear from the data. Each child either improved or remained at mastery level in all instances. The results of the tests of first names, last names, print awareness and rhyme show only pre and post test

results in the cases where the child performed under 100% on the pretest. For most children only one score is shown. That score indicates the child's mastery of the topic and therefore no post test was required.

Table 5 - Class A
Pre Test - Post Test Results

Students	Upper Case Alpha. 26 perfect	Lower Case Alpha. 26 perfect	Begin. Sound 21 perfect	Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *	Rhyme 8 perfect
Student B	23/26	16/26	10/20	27/37	yes	yes	8	8
Student E	26/26	23/26	17/21	12/42	yes	yes	8	8
Student H	25/26	25/26	11/21	19/50	yes	yes	8	8
Student J	26/26	24/25	15/20	27/45	yes	yes	8	8
Student Q	26/25	22/24	18/18	31/39	yes	yes	8	7/8
Student U	24/26	18/26	12/20	15/45	yes	yes	8	8

Table 6 - Class B
Pre Test - Post Test Results

Students	Upper Case Alpha. 26 perfect	Lower Case Alpha. 26 perfect	Begin. Sound 21 perfect	Dev. Spelling 60 perfect	First Name yes/no	Last Name yes/no	Print Awareness 8 perfect *	Rhyme 8 perfect
Student E	24/26	23/26	18/20	29/37 yes		no/yes	8	8
Student K	23/26	20/26	9/20	12/35 yes		yes	8	8
Student L	22/26	24/26	13/15	10/25 yes		yes	8	8
Student N	26/26	23/26	18/20	22/37 yes		no/yes	8	8
Student S	26/26	22/24	18/19	36/37 yes		yes	8	8
Student V	26/26	20/24	16/18	29/31 yes		no/yes	8	7/8

The September pretest which required the children to write the alphabet revealed several problems for the students. Among these were

1. None of the children could write the alphabet without reference to the class alphabet charts.

2. Some children omitted letters of the alphabet. Others simply stopped writing before reaching the end of the alphabet.

3. Upper and lowercase letters were confused while proportion, spacing and use of lines were problematic.

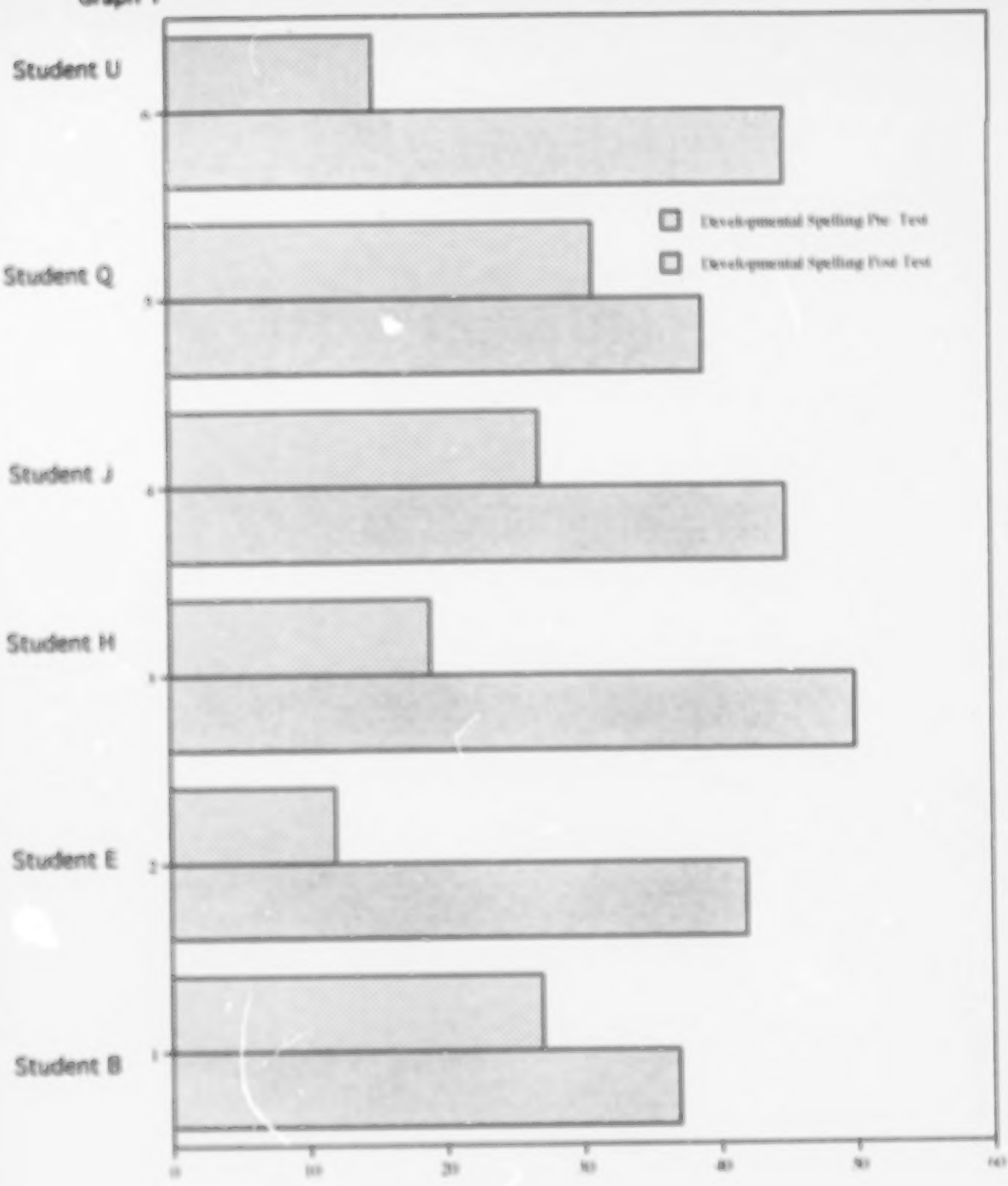
4. Reversals and confusion of letters such as b & d, p & q, s & z and m & w were frequent.

In January all children were able to write the alphabet using upper and lower case letters. All children showed growth in letter formation, spacing, and proportion. All completed the task. Reversals were still evident in some children. The time required to complete the task was less than in September. the ease with which the children completed the task was evident. In September three of twelve in the intervention group could not recognize or write their names. In January all children completed this task with ease.

Graphs 1 and 2 summarize the pre and post test data on each child's developmental spelling scores. In Class A the three students who showed the lowest growth in the developmental spelling test (students 1 (B), 5(J) and 6(U) were identified either as learning disabled or were being evaluated by the school's student services team. The three children who showed at least a 30 point gain had no L.D. or language development difficulties. In class B all six students demonstrated difficulties in auditory discrimination tasks. They had difficulty associating letters with their sounds. Students E, L, N and S all had significant speech and language deficits and delays. Students N and S were

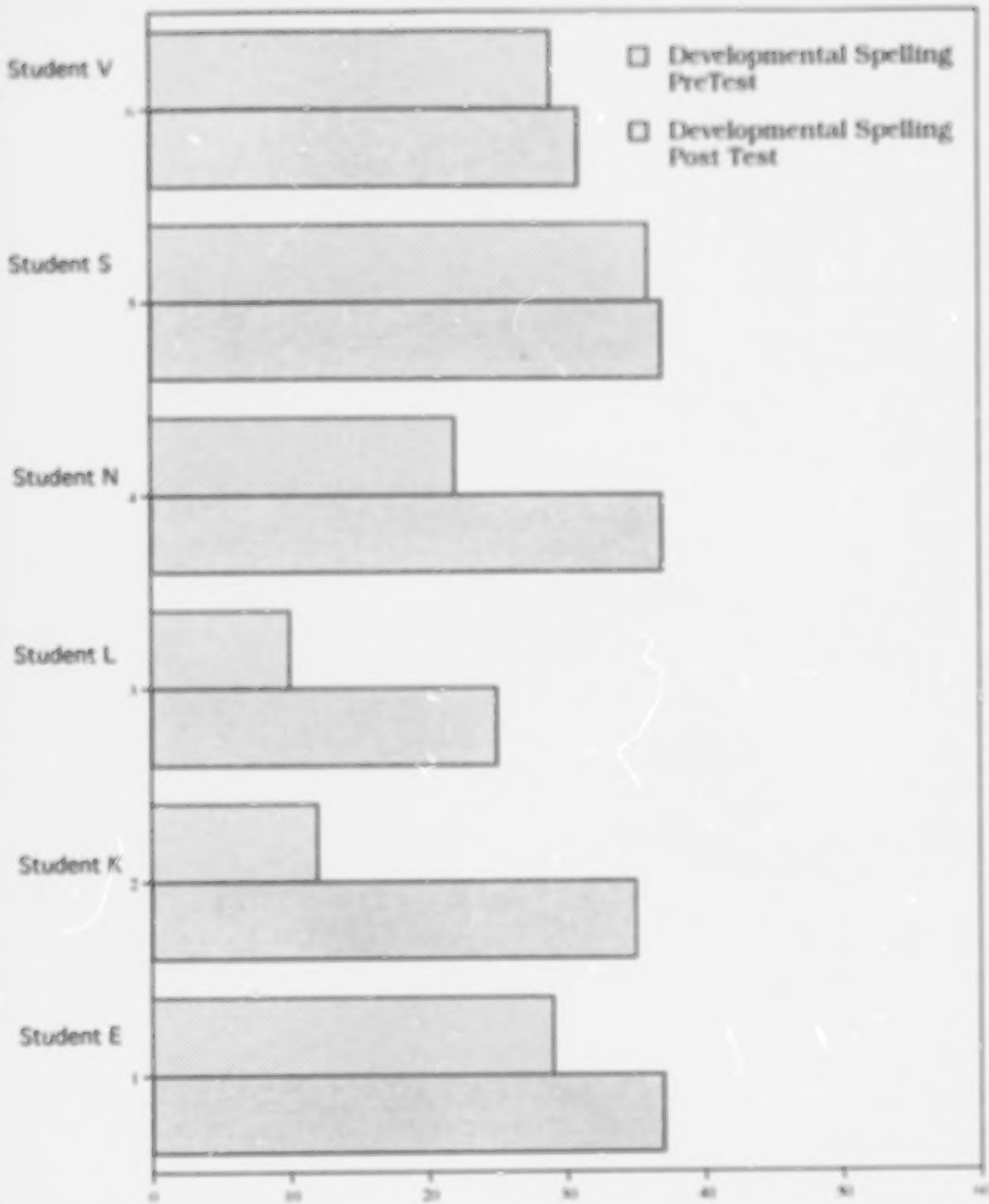
identified as learning disabled or were being evaluated for possible learning disabilities. The low achievement reflected the difficulty of phonemic tasks for this group of children.

Graph 1



Developmental Spelling Class A

Graph 2

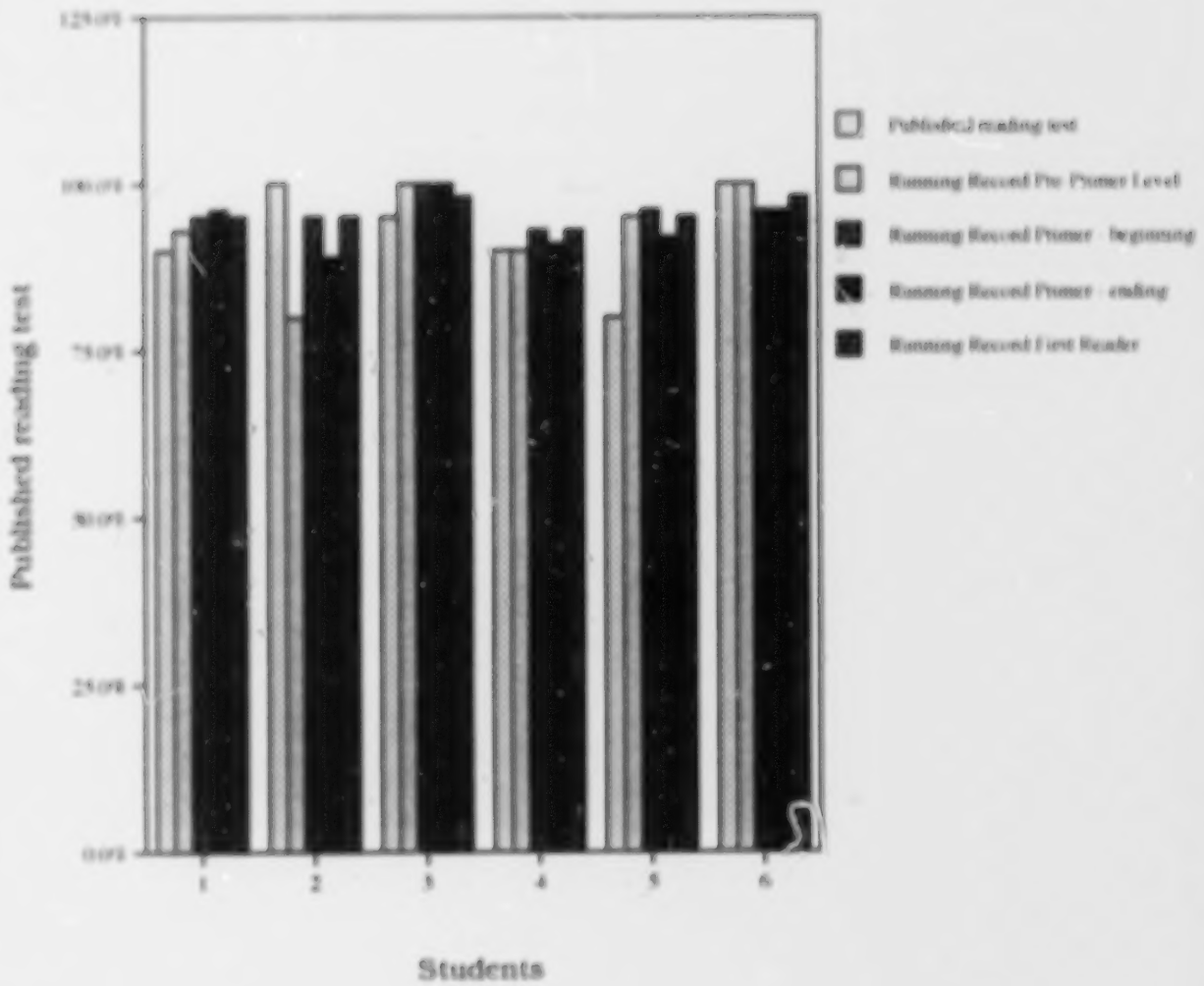


55

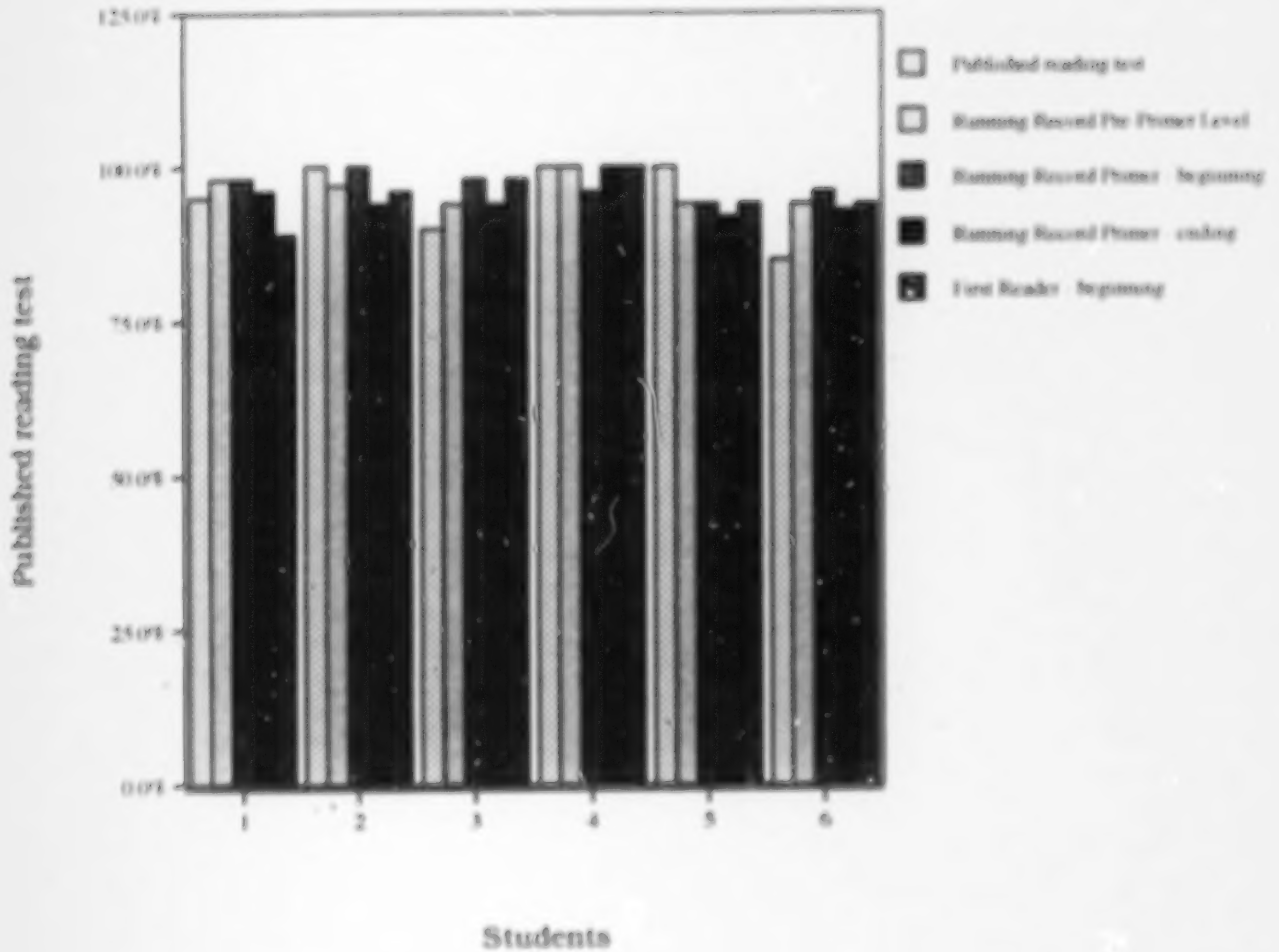
Developmental Spelling Class B

Graphs 3 and 4 display the results of two types of tests given in January: a Houghton Mifflin Invitations to Literacy test and four running records of each child's oral reading. All scores on both tests met or exceeded a level of 80% mastery. The Houghton Mifflin test measured the child's ability to read a story and answer questions about it. It also measured the child's ability to complete a sentence using a word selected to both fit correctly into a sentence (syntax) and correlate with a picture clue (context). Ten of the twelve children scored at a 90% or higher level of mastery. The other two children scored at 80% and 85% mastery respectively. The running records covered a pre-primer level through primer level and end with a beginning first reader level. The mean score of the running records in Class A was 96. The mean score of the running records in Class B was 95. The scores in Class A ranged from 92% to 98%. The scores in Class B ranged from 89% to 100%.

Graph 3 Class A



Graph 4 Class B



Conclusions and Recommendations

The first step in this intervention process was assessment. The researchers feel the most valuable and time conservative components of assessment are letter and beginning consonant sound identification, recognition of child's own name, writing the alphabet and the developmental spelling test. These assessments not only enabled the researchers to select children to receive early intervention, but the data gave critical information for areas of instruction. The researchers will continue to employ these elements in their classrooms each year.

When beginning reading lessons, the researchers quickly ascertained several factors to be critical. The use of controlled vocabulary materials was essential to provide the repetition necessary for the children to learn words. Phonemic sound boxes and word family sorts were found to be especially helpful for the children. These at-risk children are in particular need of reliable structure. The format of the lessons and consistent vocabulary provided the children with a predictable framework which helped them synthesize various elements of reading by freeing them from the distractions of intrusive variables. The common lesson elements of the reading support teacher and the classroom teacher promoted transfer of learning.

The researchers are convinced that the amount of time spent in reading is directly proportional to reading achievement. The at-risk student needs to spend a larger portion of the school day reading. The researchers believe that one of the key components of this program's success was that children received two daily reading lessons - one from the classroom teacher and one from the reading support teacher.

The researchers observed a strong correlation between speech and language development and reading readiness. In Classroom B, four out of the six students had substantial speech and language difficulties. Choral reading and articulation practice of consonant, blend, and vowel sounds was highly effective for this group of children.

Several children did not achieve significant growth in phonemic awareness, yet learned to read. Still the researchers are not willing to abandon further teaching of phonemic skills. Perhaps further research would demonstrate that the phonemic awareness and reading ability might develop and enhance each other.

The goal of this early reading intervention was to bring the targeted population to an appropriate reading level by the end of January. An analysis of the data shown above does demonstrate that each child did achieve an appropriate reading level. Careful examination of the data, however, revealed that some sub-skills of reading were not acquired by all of the students. Nevertheless, even those students are reading. Therefore, one must conclude that the ability to read cannot be defined based on a neat list of sub-skills.

Practice on those skills normally termed as reading readiness, i.e. letter names, consonant sounds and rhyming, was given concomitantly with lessons on the actual reading of text. Teachers worked to provide both academic support and emotional encouragement to the at-risk children. Even with careful attention from their teachers, learning to read was still very hard for these children. Although the subject was not discussed with them, the researchers believe these at-risk children were keenly aware of the apparent ease with which others in the class were learning to read compared with the effort it required of them. The researchers felt that two reading lessons a day were

essential to provide the reading growth necessary to sustain the children's motivation and self-esteem.

The research data show reading skill advancement for these at-risk children. However, the difficulty with which the growth was made was substantial and cannot be adequately demonstrated by data. Learning to read continues to be quite difficult for a major portion of this group of children. The researchers question whether six months is a sufficient length of time to fully achieve the goal of the intervention. The researchers have extended their program to a full school year.

The most critical aspect of this reading intervention appears to be timing. The researchers believe that intervention must begin as soon as possible to strengthen reading readiness. Further research might answer the question of the possible benefits to children of beginning this program in kindergarten and extending it into second grade.

The hope of the authors was to synthesize pertinent research findings on teaching at-risk children so they could develop a reading program for their first grade classrooms. The authors are confident they have achieved their goal. While new research findings will continually add information requiring that the program be amended and adapted, still they believe the program outlined in this research paper is a sound and totally defensible one. It forms the basis of an excellent beginning first grade reading course. The authors know that their own first grade students' learning experience has been enriched as a direct result of this research and its application to the classroom. The time and effort involved in this project has resulted in a program which will benefit their students.

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Appendices

Name:
Date:

Appendix A

Capital Letters

A	
D	
G	
J	
M	
P	
S	
V	
Y	
B	
E	
H	
K	

N	
Q	
T	
W	
Z	
C	
F	
I	
L	
O	
R	
U	
X	

Name:
Date:

Appendix B

Lower Case Letters

a	
d	
g	
j	
m	
p	
s	
v	
y	
b	
e	
h	
k	

n	
q	
t	
w	
z	
c	
f	
i	
l	
o	
r	
u	
x	

Name:
Date:

Appendix C

Consonant Sounds

B	
C	
D	
F	
G	
H	
J	
K	
L	
M	
N	

P	
Q	
R	
S	
T	
V	
W	
X	
Y	
Z	

Appendix D

Concept of Word and Print
Child's Copy

Dog

9

The dog ran across the yard. He was chasing the ball. It was his favorite game to play.

E

Appendix D.2

Concept of Word and Print
Teacher Directions

Teacher asks the child to:

1. Point to the number.

   Number found _____yes _____no

2. Point to the word.

   Word found _____yes _____no

3. Point to the letter.

   Letter found _____yes _____no

4. Point to the square.

   Square found _____yes _____no

5. Point to the sentences.

   Sentences found _____yes _____no

6. Teacher reads the sentences. The child is asked to point to the words on the student's response sheet as the teacher reads them.

   Child demonstrates 1 to 1 word correspondence.

   _____yes _____no

Appendix E

Rhyme Recognition

Rhyme Recognition: When words rhyme, they sound the same at the end. For example, fun, run, and sun rhyme. I'm going to say a word. I want you to tell me which of the words I say next rhymes with first word.

For example: Listen to this word - big. Which word rhymes with big? Tree or pig?

Listen to this word - call. Which word rhymes with call: ball or trick?

Listen to this word - boy. Which word rhymes with boy: toy or cup?

Items:

Listen to this word:

_____ Which word rhymes with:	_____	_____or	_____?
1 cat	cat:	pie	hat
2 book	book:	chair	cook
3 rock	rock:	sock	fun
4 clown	clown:	brown	draw
5 bike	bike:	ball	like
6 dark	dark:	bark	drink
7 goat	goat:	boat	giant
8 faces	faces:	fires	places

Rhyming _____/8 possible

Appendix F

Developmental Spelling Test

Words to be given on Developmental Spelling Test.

1. back
2. sink
3. mail
4. dress
5. table
6. side
7. feet
8. stamp
9. letter
10. stick
11. bike
12. seed

Score sheet for Developmental Spelling Test

1. One point given for correct initial consonant.
2. Two points given for correct initial and final consonant.
3. Three points given for the above and some vowel marking in a vowel location.
4. Four points are given for 1 and 2 and the correct vowel even if it's the wrong spelling to that correct vowel (i.e. biek rather than bike).
5. Correct spelling of word.

(Ideas are taken from Morris.)

Appendix G

Student Survey on Reading Attitudes

Name: _____ Date: _____

1. I think reading is important.	YES NO MAYBE
2. I like to read.	YES NO MAYBE
3. I like to share my reading with my friends at school.	YES NO MAYBE
4. My family likes to read to me.	YES NO MAYBE
5. I like to read to my family.	YES NO MAYBE
6. Do you like to go to the library?	YES NO MAYBE
7. Do you like it when your teacher reads to you?	YES NO MAYBE
8. Given a choice, would you rather watch TV or read?	READ TV

Appendix H

Student Interviews on Reading Attitudes and Behaviors

Name:_____ Date:_____

1. Do you think most people like to read?

2. Why do you think people read?

3. Do you have a favorite author? Who?

4. How do you pick a book?

5. When do you like to read?

6. Where do you like to read?

7. What do you think a good reader is?

8. Do all people need to learn to read?

Appendix I

Materials Used

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